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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,745	03/19/2004	Robert A. Perisho JR.	DP-309408	7671

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EXAMINER	
NGUYEN, TAN QUANG	
ART UNIT	PAPER NUMBER
3661	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,745	PERISHO ET AL	
	Examiner	Art Unit	
	TAN Q. NGUYEN	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/19/04;5/18/06;08/04/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAIL ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-40 are pending.

2. The prior art submitted on March 19, 2004, May 18, 2006, and August 04. 2006 have been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, 6-7, 11-15, 20, 23-25, 28, 29 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sielagoski et al. (6,317,679) in view of Tsutsumi et al. (6,175,799).

6. With respect to claim 1, Sielagoski et al. disclose a method for controlling a vehicle having an adaptive cruise control system which includes the steps of determining when the vehicle is in a turn based on the yaw rate information (see at least column 1, line 45 to column 2, line 1), and reducing the vehicle speed according to the vehicle position in the turn (see at least column 2, lines 2-17).

7. Sielagoski et al. do not explicitly disclose that the determining when the vehicle is in a turn based on the detected changed in the vehicle's lateral acceleration. However, such relationship between the yaw rate and the lateral acceleration are taught by the Sielagoski et al. in at least figures 3 and 4 and the related text. Furthermore, the use of the change in lateral acceleration to determine when the vehicle is well known in the art at the time the invention was made and as shown in at least the abstract of the Tsutsumi et al. reference. It would have been obvious to an ordinary skill in the art at the time the invention was made to combine these teaching in order to determine when the vehicle is in a turn based on the change in the lateral acceleration and then reducing the vehicle speed while the vehicle is in the turn since the lateral information is well known sensed, detected and being used in the vehicle control art.

8. With respect to claim 2, Sielagoski et al. disclose the steps of measuring the vehicle's speed, yaw rate and the rate of change in the yaw rate (see at least figures 2, 5 and the related text).

9. With respect to claim 3, it is well known to an ordinary skill in the art at the time the invention was made to know the relationship between the yaw rate, vehicle speed and the lateral acceleration. Thus, since Sielagoski et al. disclosed the use of vehicle

speed sensor and the yaw rate sensor in figure 2, it would have been obvious that the lateral acceleration should be derived from the detected vehicle speed and yaw rate data.

10. With respect to claim 6, Sielagoski et al. also disclose the step of determining the vehicle's position within the turn as shown in at least column 1, lines 50-53.

11. With respect to claim 7, Sielagoski et al. disclose the step of reducing the vehicle speed until the vehicle lateral acceleration exceeds a predetermined limit (see at least figure 4 and the related text).

12. With respect to claim 39, it is obvious that the lateral acceleration can be calculated based on the yaw rate and vehicle speed or can be measured from the sensor as shown by the Tsutsumi et al. in at least figure 1B, item 5g).

13. With respect to claims 11-15, 20, 23-25, 28, 29 and 40, the limitations of these claims have been noted in the rejections above. They are therefore considered rejected as set forth above.

14. With respect to claim 38, the limitations of this claim have been noted in the rejections above. Sielagoski et al. further disclose the step of estimating the radius of curvature of the vehicle's path based on the vehicle speed and lateral acceleration (see at least figure 4).

15. Claims 8-10, 16-19, 21, 22, and 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sielagoski et al. and Tsutsumi et al. as applied to the claims above, and further in view of Butsuen et al. (5,467,283).

16. With respect to claims 8-10 and 16-19, Sielogoski et al. and Tsutsumi et al. disclose the claimed invention as discussed above except for the steps of detecting whether there is an object in the vehicle path during the turn and activating the brake if there is. However, such limitations are well known and taught by the Butsuen et al. in at

least the abstract, figure 1, 5 and the related text). It would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the teaching of Butsuen in the combined system of Sielogoski et al. and Tustsumi et al. in order to improve the safety for the vehicle system during the turn by not only reducing the speed but also controlling the brake if there is an obstacle in the path of the turn.

17. With respect to claims 21 and 22, Sielagoski disclose the ACC which the vehicle is reduced when the vehicle is in a turn and back for cruise control when the vehicle exit the turn (see at least column 2, lines 1-18), i.e. there is the detection of the first zone (during turn) and second zone (exit the turn).

18. With respect to claims 30-37, the limitations of these claims have been noted in the rejection above. They are therefore considered rejected as set forth above.

19. Claims 4, 5, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sielagoski et al. and Tsutsumi et al. as applied to the claims above, and further in view of Fukada et al. (5,627,756).

20. Sielogoski et al. and Tsutsumi et al. disclose the claimed invention as discussed above except for the steps of filtering the lateral acceleration data and processing the filtered lateral acceleration data to determine whether the vehicle is turning. However, such teaching is old and well known in the art and as shown in at least column 3, paragraphs 3, 4, figures 5, 22, 24 and the related text of the Fukada et al. reference. It would have been obvious to an ordinary skill in the art to incorporate such teaching of Fukada et al. into the combined Sielogoski et al. and Tsutsumi et al. in order to have a smooth and needed data for the raw sensed data.

Conclusion

21. All claims are rejected.

22. The following references are cited as being of general interest: Matsuda et al. (6,141,617), Miyahara (6,753,804), Winner et al. (6,763,904), Cardinal et al. (6,051,827), and Bai et al. (2003/0201878).

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the Official Fax Center: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAN Q. NGUYEN
Primary Examiner
Art Unit 3661

/tqn
March 4, 2007